

REDWOOD™

65MP CAMERAS



CoaxPress

Video Cameras with Gpixel GMAX3265 Sensors

APPLICATIONS

Automated Optical Inspection

Wide Area Observation

Virtual Reality and Special Effects

Scientific Research



FEATURES INCLUDE:

- Monochrome and Color Models
- High Resolution with High Speed Output
- Charge-Domain Global Shutter CMOS Sensor
- Fast CoaxPress 2.0 Video Output with Coaxial or Fiber Optic Cabling Options
- Selectable 8/10/12-bit Data Formats
- Multiple Lens Mount Options
- Multi-ROI with up to 16 Separate Windows
- Flexible Image Adjustment and Enhancement

IO
INDUSTRIES

SPECIFICATIONS

Camera Model	Redwood 65MP
Sensor Size (H x V)	9344 x 7000 (65.4 MP)
Frame rate (full resolution)	71 fps (8-bit), 57 fps (10-bit), 31 fps (12-bit)
Optical Format	35mm Full Frame (37.4 mm diagonal)
Sensor Type	CMOS w. global electronic shutter
Sensor Options	Monochrome or color (Bayer)
Pixel Size	3.2 x 3.2 μm
Dynamic Range	66 dB (12-bit ADC mode), 62.3dB (10-bit ADC mode); optional Interleaved HDR
Output Configurations	1/2/4 links at 3.125 / 5.0 / 6.25 / 10.0 / 12.5 Gbps via coaxial or fiber cabling (QSFP+)
Multiple ROI / Binning	Up to 16 windows with optional 2x2 binning, or with full-size window 1/2 subsampling can be used
Pixel Bit Depth	Selectable 8/10/12-bit output from 10-bit (high-speed) or 12-bit (high dynamic range) ADC modes
Exposure Control	Programmable or level-controlled exposure, triggered double exposure (PIV), or auto exposure
Image Correction	Black level, FPN/PRNU, bad pixel replacement, FFC, denoise filter, detail enhancement filter
Color Processing	White balance (Auto one-shot, tracking, or manual), Black balance (auto or manual), Gamma LUTs
Camera Configuration	GenICam or Redwood Control software
Mechanical/Electrical	
Dimensions	62.0 mm x 62.0 mm x 154.7 mm (WxHxD, with F-mount)
Lens Mount	F-mount, M52 x 0.75 or Active Canon EF-mount
Weight	715 g (with F-mount, no lens)
Power Requirements	Approx. 12W @ 12V DC via Hirose 6-pin, CX models support PoCXP (min. 2 links required)
Additional I/O	TTL-level trigger input/output
Operating Temperature	-10°C to 50°C, 20-85% humidity (non-condensing)
Storage Temperature	-40°C to 85°C, 10-90% humidity (non-condensing)

FRAME RATE CHART

Example Output Resolution:	ADC Mode: CXP Connection*:	Output:	10-bit		12-bit		
			8-bit	10-bit	8-bit	10-bit	12-bit
Maximum (9344 x 7000)	4x CXP-12		71	57	31	31	31
	2x CXP-12 / 4x CXP-6		35	28	31	28	23
	2x CXP-10 / 4x CXP-5		26	20	25	20	17
8K UHD TV2 (7680 x 4320)	1x CXP-12 / 2x CXP-6 / 4x CXP-3		17	14	17	14	11
	4x CXP-12		114	112	51	51	51
	2x CXP-12 / 4x CXP-6		69	56	51	51	46
	2x CXP-10 / 4x CXP-5		51	41	51	41	34
	1x CXP-12 / 2x CXP-6 / 4x CXP-3		35	28	34	28	23

*both Coaxial and CoaXPress-over-Fiber models support configurations up to 4x CXP-12

ORDERING

Example: 654G71CCQ-A

Camera
654G71

Lens Type

F - F-mount

M - M52 x 0.75

A - Active EF-mount

AO - Active EF-mount w. OLPF/IR-Cut Filter

Sensor Type

M - Monochrome

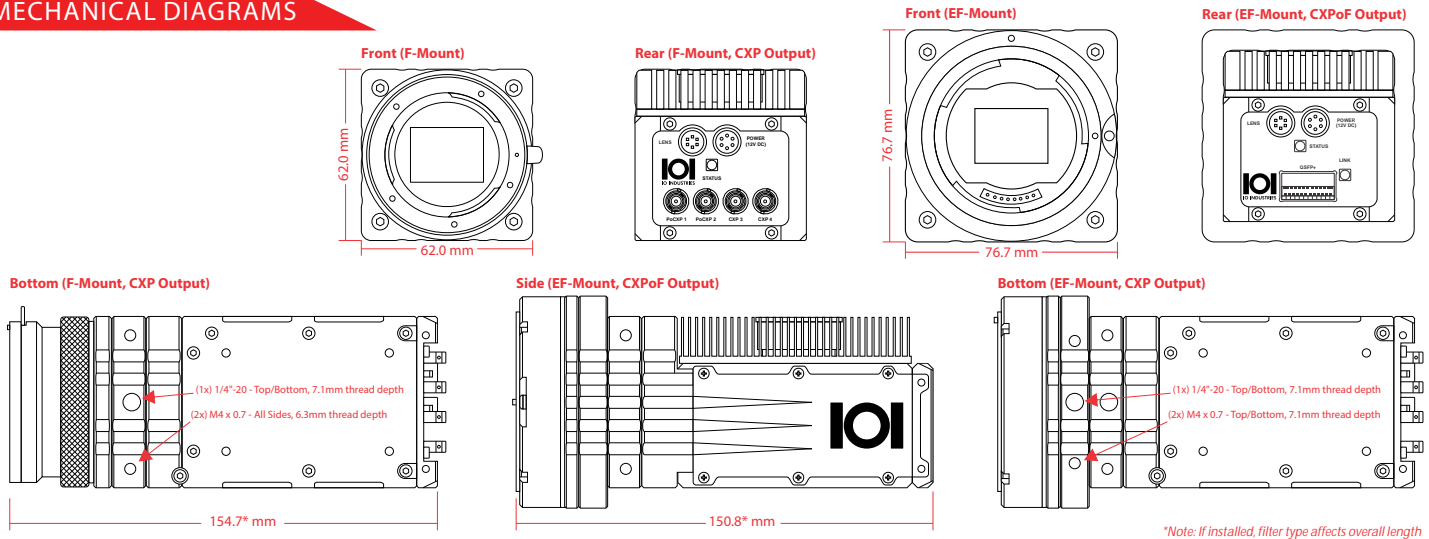
C - Color (with IR-Cut filter)

Interface

CX - CoaXPress (Coaxial)

CQ - CoaXPress-over-Fiber (QSFP+)

MECHANICAL DIAGRAMS



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